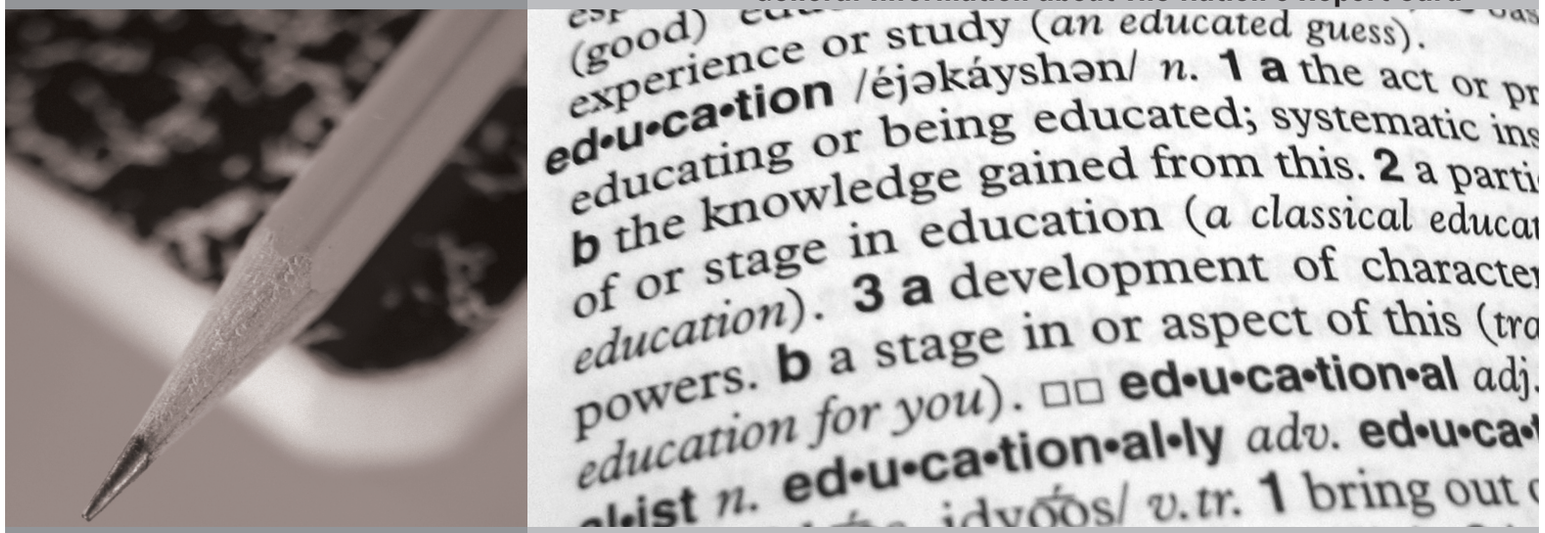
NAEP

NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS

Sample Questions

General Information about The Nation's Report Card™



Grade 8

2009

Mathematics
Reading
Science

NAEP

NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS

2009 Grade 8

SECTION	
1	M12
2	M3
3	D1
4	MB1

Mathematics Book

M119P

School and Teacher Information

SCHOOL # | | | | | | | TEACHER # | |

Planning Code (Col. N)

Admin. Code (Col. Q)

If Code 2 or 3, complete the box below.

Accommodations Offered in Regular or Separate Session (Code All That Apply)

- Y BDR
- N/A BIB
- Y BID
- Y REA
- Y BRL
- Y LRG
- Y MAG
- Y SCR
- Y SMG
- Y ONE
- Y SSA
- Y EXT
- Y BRK
- Y OTH

If Extended Time (EXT) is coded above, enter the total time used below

DO NOT USE

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National Assessment of Educational Progress

2009 Sample Questions Booklet

About This Sample Questions Booklet

On behalf of the National Assessment of Educational Progress (NAEP), I want to thank you for your participation in this essential measure of student achievement in America. NAEP tells us what students in our country know and can do. In the coming year, fourth-, eighth- and twelfth-graders will participate in NAEP. Eighth-graders will participate in assessments for mathematics, reading, and science.

Assessments require about 90 minutes of a student's time, and each student answers questions in only one subject. The test booklet contains 50 minutes of test questions and a brief section of background questions.

NAEP is voluntary and confidential. Answers to all student questions are confidential, and before the materials leave the school, student names are removed from all assessment materials. Individual student scores are not reported.

Results of the assessments will be released in *The Nation's Report Card*™ in mathematics in the fall of 2009, and reading and science in early 2010. Assessment results are widely discussed in the press and are used by policymakers, educators, and researchers to make decisions about education policy and funding.

The usefulness of the national assessment results increases when parents, educators, and policymakers are able to study the proficiencies (or scores) along with information about student experience, the school environment, and opportunities for students to learn. Included in this booklet are all of the general student background questions for mathematics, reading, and science. The student background questions provide educators and policymakers with valuable insight into the conditions and factors that influence student learning so that decisions can be made that may maximize achievement for all students. Also included in this booklet are sample questions and selected responses to help provide a better understanding of what the assessment is like.

If you have any questions or comments regarding NAEP or would like to view previous Nation's Report Cards, please visit the NAEP website at http://nces.ed.gov/nationsreportcard. Also available through the website is a Questions Tool (http://nces.ed.gov/nationsreportcard/itmrls) which allows you to review additional sample questions with sample answers.

Peggy G. Carr, Associate Commissioner
Education Assessment
National Center for Education Statistics

NAEP is administered by the National Center for Education Statistics, a principal component of the U.S. Department of Education's Institute of Education Sciences. Policy for the assessment, including its content and standards, is set by the independent, bipartisan National Assessment Governing Board (www.nagb.org).

The Mathematics Assessment

The NAEP mathematics assessment measures students' ability to solve problems in five mathematics content strands: Number Properties and Operations; Measurement; Geometry; Data Analysis, Statistics, and Probability; and Algebra. Within each of these five content strands, students are asked questions that involve low, moderate, and high mathematical complexity. Mathematical complexity deals with what students are asked to do in a task.

The mathematics assessment includes multiple-choice questions, short-answer constructed-response questions, and extended constructed-response questions. The extended exercises allow students to communicate their ideas and demonstrate the reasoning they used to solve problems. The short-answer and extended-response questions make up approximately 50 percent of student assessment time. The assessment also incorporates the use of calculators, rulers, protractors, and ancillary materials such as spinners and geometric shapes in some parts of the assessment, but not all.

Scientific calculator use is permitted on approximately one-third of the test questions. At grade 8, students may use their own scientific or graphing calculators. These items are designed so that students who bring their own graphing calculator are not at an advantage compared to students who use the scientific calculator provided. For more information regarding the mathematics assessment framework, please visit http://www.nagb.org.

NAEP Mathematics Framework
Distribution of Questions Across Content Strands

	Grade 8
Number Properties and Operations	20%
Measurement	15%
Geometry	20%
Data Analysis, Statistics, and Probability	15%
Algebra	30%

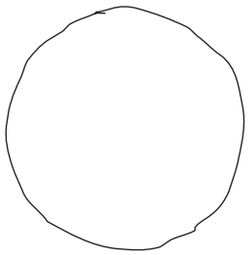
Mathematics Booklet Directions

This assessment uses many different booklets. Each booklet has different questions. Do not worry if the person next to you is working on questions that do not look like those you are working on.

Read each question carefully and answer it as well as you can. Do not spend too much time on any one question.

For some of the questions you may need to write or draw the answer. You can see how this is done in the example below.

Draw a circle in the space below.



You may be permitted to use a calculator for at least one part of your booklet. You may use either your own calculator or the calculator provided by NAEP. If you are permitted to use a calculator, you will have to decide when to use it in each section where its use is permitted. For some questions using the calculator is helpful, but for other questions the calculator may not be helpful.

If you are using the calculator provided by NAEP, make sure you know how to use it before beginning the section. There are instructions on the back cover of this booklet to help you. If the calculator does not work or if you do not know how to use it, raise your hand and ask for help.

REMEMBER:

Read each question CAREFULLY.

Fill in only ONE OVAL for each question or write your answer in the space provided.

If you change your answer, ERASE your first answer COMPLETELY.

CHECK OVER your work if you finish a section early.

Do not go past the STOP sign at the end of each section until you are told to do so.

Sample Mathematics Questions
Grade 8

1. Of the following, which is the best unit to use when measuring the growth of a plant every other day during a 2-week period?

   ● Centimeter

   Ⓑ Meter

   Ⓒ Kilometer

   Ⓓ Foot

   Ⓔ Yard

---

2. Jaime knows the following facts about points *A*, *B*, and *C*.

   • Points *A*, *B*, and *C* are on the same line, but might not be in that order.

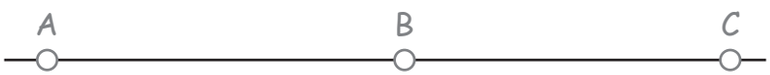
   • Point *C* is twice as far from point *A* as it is from point *B*.

   Jaime concluded that point *C* is always between points *A* and *B*.

   Is Jaime's conclusion correct?

   ○ Yes ● No

   In the space provided, use a diagram to explain your answer.



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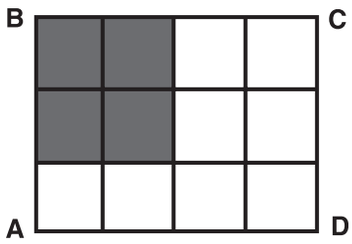

3. In the figure above, what fraction of rectangle ABCD is shaded?

Ⓐ $\frac{1}{6}$

Ⓑ $\frac{1}{5}$

Ⓒ $\frac{1}{4}$

● $\frac{1}{3}$

Ⓔ $\frac{1}{2}$

STOP

The Reading Assessment

The NAEP reading assessment measures students' ability to understand, to interpret, and to think critically about different types of texts. Recognizing that readers vary their approach according to the demands of different types of text, the NAEP framework specifies the assessment of reading in two distinct types of text—literary and informational text. The assessment includes reading materials selected from publications and other resources typically available to students in and out of school.

The framework for the 2009 NAEP Reading Assessment replaces a framework that was first developed for the 1992 assessment. The 2009 framework honors many aspects of the previous framework but also introduces some changes that can lead to better measurement and more precise reporting of assessment results. Changes featured in the 2009 NAEP Reading Framework include

- an assessment design based on current scientific reading research,
- consistency with the No Child Left Behind legislation,
- use of international reading assessments to inform the NAEP Framework,
- a more focused measurement of vocabulary,
- measurements of reading behaviors (cognitive targets) in a more objective manner, and
- distinction of cognitive targets relevant to literary and informational text.

The NAEP reading assessment contains multiple-choice questions, as well as short and extended constructed-response questions. Students spend approximately 50 to 60 percent of their assessment time providing written answers to constructed-response questions. For more information regarding the reading assessment framework, please visit http://www.nagb.org.

NAEP Reading Framework
Distribution of Question Pool Across Contexts

	Grade 8
Literary text	45%
Informational text	55%

Reading Booklet Directions

In each of the next two sections, you will have 25 minutes to read one or two passages and to answer questions about what you have read.

You will be asked to respond to two types of questions. The first type of question requires you to choose the best answer and fill in the oval for that answer in your booklet. Some questions of this type will ask you about the meaning of a word as it is used in the passage.

The other type of question requires you to write your answer on the blank lines in your booklet. Some questions of this type will ask you to write a short answer and some questions will ask you to write a longer answer.

Here is an example of a question that requires you to write a short answer.

Do you think "Summer Adventure" was a good title for the story? Explain why or why not using details from the story.

I think "Summer Adventure" was a good title for the story because the main character, Joe, got to go on a trip to Alaska where he saw Mt. McKinley.

Here is an example of a question that requires you to write a longer, more detailed answer.

Joe has different feelings during his trip in Alaska. Describe two different feelings Joe had and explain what caused him to have those feelings.

Joe was lonely when he first arrived in Alaska because he was missing his friends back home, but then he met Jerry and Pat and felt better.

When Jerry's parents took them all to Portage Lake, Joe felt excited because they went on a boat ride across a lake filled with icebergs to see the blue glacier.

Think carefully about each question. When you are writing your response, make your answer as complete as possible. Be sure your handwriting is clear. Use as many lines as you need.

You may go back to the passage when answering the questions.

If you finish before time is called, read over your work to be sure you have provided your best answer.

Sample Reading Questions
Grade 8

Kid Fights Cheater Meters And Wins!

The true story of a girl with a stopwatch and a bag of nickels who uncovered a local parking scandal and helped change the laws of her state . . .

Ellie Lammer wasn't trying to spark a revolt, she just wanted a haircut. That was in the fall of 1997. Ellie was 11 years old at the time, and she was getting her tresses trimmed in her hometown of Berkeley, California. When Ellie and her mom returned to their car, they found a parking ticket stuck to the windshield. It didn't seem possible: Less than an hour earlier, Ellie had pumped an hour's worth of coins into the meter. But now the needle was at zero, and Ellie's mom owed $20.

Feeling cheated, Ellie dropped another nickel in the meter and twisted the knob. The needle clicked over to the four-minute mark. Ellie stared at her watch while her mom watched the meter. Less than three minutes later, all of the time had expired. There it was: proof that they'd been cheated. The city tore up the ticket when Ellie's mom complained about the meter.

But the experience left Ellie wondering how many other meters were inaccurate. Six months later, she decided to find out. She'd been looking around for a good science-fair project—and that meter in Berkeley still bothered her. So armed with a bag of nickels and a stopwatch, she hit the streets.

Ellie didn't have the time or money to test every meter, so she focused on a sample of 50 meters located in different parts of the city. To avoid inconveniencing motorists, she did her research after 6 P.M. and on Sundays, when the meters were not in use. She put in eight minutes' worth of nickels in each meter, then measured how much time it really gave.

The results were not pretty. Ellie's findings suggested that more than nine out of every ten meters in the city were inaccurate—and that every fourth parking

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meter was running out of time too quickly. With 3,600 parking meters in the city, that meant a lot of undeserved tickets. As Ellie wrote in her science-project report, "I learned which meters cheat you and which meters cheat the City of Berkeley. But I learned that almost all meters cheat someone, so beware."

When the science fair rolled around, Ellie presented her findings with computer-generated charts and graphs. Her classmates weren't very interested in her project. "It's not like they have to drive a car or put money in a parking meter," she explains. But her project was a huge hit with parents. More than 50 of them lined up that night to share their own parking-meter horror stories with Ellie.

After that, word about Ellie's meter project spread fast. Within a few weeks, Ellie got a call from local politician Diane Woolley. At the time, Berkeley was considering replacing its meters with more accurate digital ones. Ellie shared her findings at city hall, and the politicians were impressed. "We don't get reports this thorough when we pay consultants hundreds of thousands of dollars," one remarked. Based on Ellie's study, they decided to purchase 2,000 new meters.

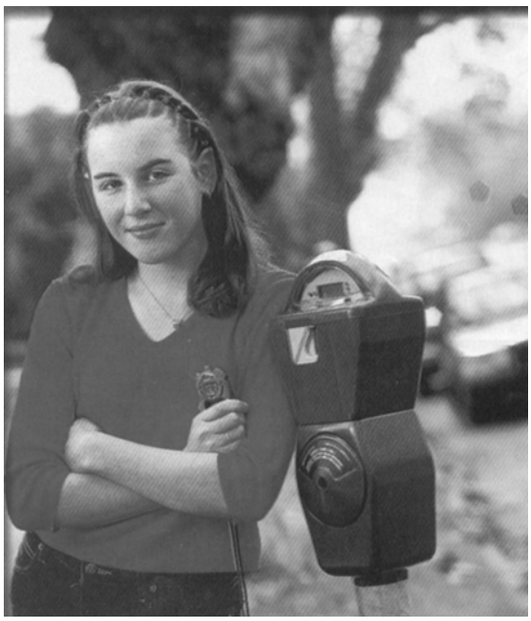
The California state legislature also decided to crack down on cheater meters. After Ellie presented her findings, they enacted "Lammer's Law," which requires California's 26 counties to test the accuracy of parking meters. Any meter found to be inaccurate must be fixed or dismantled.

California Governor Pete Wilson signed the law on November 1, 1998. At the time, he commented, "Ellie's ingenuity and dedication has earned her the gratitude of those Californians who've dug through their purses and pockets in search of exact change to feed the meters, only to return to find their cars bearing the dreaded green envelope of a parking ticket."

Ellie became a celebrity. She was in newspapers all over the country and featured on local television news during the summer and fall of 1998. CNN did a story about her. She was even a guest on the Late Show with David Letterman. "It was kind of a weird moment of being a celebrity," she says.

Ellie, who's now an eighth-grader at Martin Luther King Middle School, is proud of the work she's done. But she doesn't see meter monitoring as her life's work: "Right now I don't mind being known as the parking-meter girl, but I'm sure that later in life I'll want something different."

VB436824



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VB436825

1. Explain the meaning of the title "Kid Fights Cheater Meters and Wins!" Use information from the article to support your answer.

VB436826

2. Why did Ellie's meter project attract so much attention? Explain why using information from the article.

VB436827

3. According to the article, why did Ellie do much of her research after 6 P.M.?

Ⓐ She did not want people to learn about her project.

● She did not want to inconvenience motorists.

Ⓒ She had to focus on a sample of 50 meters.

Ⓓ She saved money because the meters cost less after 6 P.M.

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VB436828

4. According to the article, what did Ellie learn from doing her meter project?

● Every fourth meter ran too quickly.

Ⓑ Nine out of ten digital meters were accurate.

Ⓒ 3,600 parking meters were inaccurate.

Ⓓ Almost none of the 50 meters ran too slowly.

VB436829

5. Choose two things Ellie Lammer did and explain what those things tell about her. Use examples from the article to support your answer.

VB436830

6. What happened when Ellie presented her report at the science fair?

Ⓐ She won first prize for her computer-generated graphics.

Ⓑ Other students were interested in her findings.

● Parents wanted to tell her their own parking meter stories.

Ⓓ She decided to pursue meter monitoring as a career.

The Science Assessment

The 2009 NAEP assessment in science for grade 8 contains multiple-choice questions, as well as short and extended constructed-response exercises. At least 50% of the assessment time is devoted to constructed-response exercises. These questions measure students' knowledge of facts, ability to integrate this knowledge into larger constructs, and capacity to use the tools, procedures, and reasoning processes of science to develop an increased understanding of the natural world.

The 2009 Science Framework replaces a framework developed in 1996.The 2009 NAEP science assessment is organized according to science content and practices.

Science Content

Physical Science	Life Science	Earth and Space Science
Matter • Properties of Matter • Changes in Matter **Energy** • Forms of Energy • Energy Transfer • Conservation **Motion** • Motion at the Macroscopic Level • Forces Affecting Motion	**Structures and Functions of Living Systems** • Organization and Development • Matter and Energy Transformations • Interdependence **Changes in Living Systems** • Heredity and Reproduction • Evolution and Diversity	**Earth in Space and Time** • Objects in the Universe • History of the Earth **Earth Structures** • Properties of Earth Materials • Tectonics **Earth Systems** • Energy in Earth Systems • Climate and Weather • Biogeochemical Cycles

Science Practices

The frameworks reflect these four science practices:

- Identifying Science Principles
- Using Science Principles
- Using Scientific Inquiry
- Using Technological Design

The greatest emphasis is in Identifying and Using Science Principles.

Science Booklet Directions

In each of sections 1 and 2, you will have 25 minutes to answer a series of questions about science.

You will be asked to respond to several different types of questions. Some of the questions will require you to choose the best answer and fill in the oval for that answer in your booklet. On questions like this, be sure to mark your answers clearly and darken the oval completely. If you make a mistake or want to change your answer, be sure to erase any unwanted marks. Here is an example of a question that requires you to fill in an oval.

Example 1

How hot is it on the surface of the Sun?

Ⓐ Not quite as hot as boiling water

Ⓑ About as hot as fire

Ⓒ About 100°F

● Much hotter than almost anything on Earth

For some questions, you will be asked to write short answers on the blank lines provided in your booklet. Here is an example of a question that requires you to provide a short answer.

Example 2

Describe one important difference between plants and animals.

Most plants make their own food, while animals eat plants and other animals for food.

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Also, you will be asked to answer some questions by writing longer, more detailed responses. For example, here is a question that requires you to provide a longer answer.

Example 3

Describe three things that animals do to survive in areas that have cold winters.

Some animals store a lot of fat so that they can go into a deep sleep all winter. Some animals grow a thick coat of fur to keep them warm. Some birds and butterflies fly away from a cold area and spend the winter in a place that is warm and has a lot of food.

When you are asked to write your response be sure that your handwriting is clear. Think carefully about each question and make your answers as complete as possible, using as many lines as you need. If you finish a section before time is called, you may go back and check your work on that section only.

Finally, in some questions you may be asked to draw a diagram or fill in a table.

Sample Science Questions
Grade 8

JL001087

1. Which of the following properties of the Earth is the result of the processes of living things?

   Ⓐ The Earth's oceans are salty.

   Ⓑ The Earth has magnetic poles.

   ● The Earth's atmosphere contains a lot of oxygen.

   Ⓓ The Earth's crust contains a lot of volcanic rock.

HE001481

2. Raul's little sister, Sarah, wants to know why she can see herself in the mirror, but she can see through a window. What should Raul tell his sister to explain the differences between mirrors and windows?

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HE001834

3. While practicing for a play, a student standing on the stage of a large, empty auditorium shouts loudly and hears her voice echo throughout the room. Later, the same student is on the stage of the same auditorium, which is now full of quiet people. The student shouts again, just as loudly. This time, however, she does not hear an echo. Explain why she hears an echo the first time and why she does not hear an echo the second time.

Student Background Questionnaire

General Directions for Grade 8

In the next two sections, you will be asked questions about yourself and your education. The choices for some questions will be written across the page as shown. Fill in the oval for the best answer.

Example 1

	Never or hardly ever	Once or twice a month	Once or twice a week	Almost every day
1. How often do you watch movies on TV?	Ⓐ	Ⓑ	Ⓒ	Ⓓ

You should have filled in the oval below the answer that best tells how often you watch movies on TV.

The choices for some questions will be written down the page as shown. Now read Example 2 and indicate your answer.

Example 2

2. Which event would you prefer to attend?
   - Ⓐ basketball game
   - Ⓑ car show
   - Ⓒ concert
   - Ⓓ play

Make your answer mark clear and dark in the oval. If you make a mistake or want to change your answer, be sure to completely erase any unwanted marks.

Do not go past the STOP sign at the end of each section until you are told to do so.

If you finish before time is called, go back and check your work on that section only. Use your time carefully. Do as much as you can in each section.

Student Background Questionnaires

Grade 8

In this section, please tell us about yourself and your family. The section has 13 questions. Mark your answers in your booklet.

VB331330

1. Are you Hispanic or Latino? Fill in one or more ovals.

   Ⓐ No, I am not Hispanic or Latino.

   Ⓑ Yes, I am Mexican, Mexican American, or Chicano.

   Ⓒ Yes, I am Puerto Rican or Puerto Rican American.

   Ⓓ Yes, I am Cuban or Cuban American.

   Ⓔ Yes, I am from some other Hispanic or Latino background.

VB331331

2. Which of the following best describes you? Fill in one or more ovals.

   Ⓐ White

   Ⓑ Black or African American

   Ⓒ Asian

   Ⓓ American Indian or Alaska Native

   Ⓔ Native Hawaiian or other Pacific Islander

For the rest of the questions in this section, fill in only **one** oval for each question.

VB331333

3. Does your family get a newspaper at least four times a week?

   Ⓐ Yes

   Ⓑ No

   Ⓒ I don't know.

VB331334

4. Does your family get any magazines regularly?

   Ⓐ Yes

   Ⓑ No

   Ⓒ I don't know.

VB331335

5. About how many books are there in your home?

   Ⓐ Few (0–10)

   Ⓑ Enough to fill one shelf (11–25)

   Ⓒ Enough to fill one bookcase (26–100)

   Ⓓ Enough to fill several bookcases (more than 100)

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VB331336

6. Is there a computer at home that you use?

Ⓑ Yes

Ⓒ No

VB331337

7. Is there an encyclopedia in your home? It could be a set of books, or it could be on the computer.

Ⓐ Yes

Ⓑ No

Ⓒ I don't know.

TB001101

8. About how many pages a day do you have to read in school and for homework?

Ⓐ 5 or fewer

Ⓑ 6–10

Ⓒ 11–15

Ⓓ 16–20

Ⓔ More than 20

VB331339

9. How often do you talk about things you have studied in school with someone in your family?

Ⓐ Never or hardly ever

Ⓑ Once every few weeks

Ⓒ About once a week

Ⓓ Two or three times a week

Ⓔ Every day

VB331447

10. How many days were you absent from school in the last month?

Ⓐ None

Ⓑ 1 or 2 days

Ⓒ 3 or 4 days

Ⓓ 5 to 10 days

Ⓔ More than 10 days

VB330870

11. How far in school did your mother go?

Ⓐ She did not finish high school.

Ⓑ She graduated from high school.

Ⓒ She had some education after high school.

Ⓓ She graduated from college.

Ⓔ I don't know.

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VB330871

12. How far in school did your father go?

Ⓐ He did not finish high school.

Ⓑ He graduated from high school.

Ⓒ He had some education after high school.

Ⓓ He graduated from college.

Ⓔ I don't know.

VB331451

13. How often do people in your home talk to each other in a language other than English?

Ⓐ Never

Ⓑ Once in a while

Ⓒ About half of the time

Ⓓ ll or most of the time

Mathematics Background Questionnaire

Grade 8

This section has 18 questions. Mark your answers in your booklet. Fill in only **one** oval for each question.

VB543277

1. What math class are you taking this year?

   Ⓐ Geometry

   Ⓑ Algebra II

   Ⓒ Algebra I (one-year course)

   Ⓓ First year of a two-year Algebra I course

   Ⓔ Second year of a two-year Algebra I course

   Ⓕ Introduction to algebra or pre-algebra

   Ⓖ Basic or general eighth-grade math

   Ⓗ Integrated or sequential math

   Ⓘ Other math class

JVB543278

2. What math class do you expect to take next year?

   Ⓐ Geometry

   Ⓑ Algebra II

   Ⓒ Algebra I (one-year course)

   Ⓓ First year of a two-year Algebra I course

   Ⓔ Second year of a two-year Algebra I course

   Ⓕ Introduction to algebra or gpre-algebra

   Ⓗ Basic or general math

   Ⓘ Integrated or sequential math

   Ⓙ Business or consumer math

   Ⓚ Other math class

   Ⓛ I don't know.

VC290281

3. Do you study or do work for math at an after-school or tutoring program?

   Ⓐ Yes

   Ⓑ No

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VC497572

4. How often do you feel the following way in your math class? Fill in **one** oval on each line.

	Never or hardly ever	Sometimes	Often	Always or almost always	
a. I have a clear understanding of what my math teacher is asking me to do.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC497573
b. The math work is too easy.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC497574
c The math work is challenging.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC497575
d. The math work is engaging and interesting.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC497576
e. I am learning.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC497577

VC189706

5. Please indicate how much you DISAGREE or AGREE with the following statements. Fill in **one** oval on each line.

	Strongly diagree	Disagree	Agree	Strongly agree	
a. Because math is fun, I wouldn't want to give it up.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC189707
b. I like math.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC189710
c. Math is one of my favorite subjects.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC189711

VB517159

6. How often do you use these different types of calculators in your math class?

	Never use	Sometimes, but not often	Usually use	
a. Basic four-function (addition, subtraction, multiplication, division)	Ⓐ	Ⓑ	Ⓒ	VB517160
b. Scientific (not graphing)	Ⓐ	Ⓑ	Ⓒ	VB517161
c. Graphing	Ⓐ	Ⓑ	Ⓒ	VB517282

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VB517158

7. When you take a math test or quiz, how often do you use a calculator?

   Ⓐ Never

   Ⓑ Sometimes

   Ⓒ Always

VB543269

8. For each of the following activities, how often do you use a **calculator**? Fill in **one** oval on each line.

	Never or hardly ever	Once every few weeks	About once a week	Two or three times a week	Every day or almost every day
a. To check your work on math homework assignments	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
b. To calculate the answers to math homework problems	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
c. To work in class on math lessons led by your teacher	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ

VB543270

VB543271

VB543272

VB543267

9. What kind of **calculator** do you usually use when you are **not in math class**?

   Ⓐ None

   Ⓑ Basic four-function (addition, subtraction, multiplication, division)

   Ⓒ Scientific (not graphing)

   Ⓓ Graphing

VB525162

10. How often do you use a computer for math at school?

    Ⓐ Never or hardly ever

    Ⓑ Once every few weeks

    Ⓒ About once a week

    Ⓓ Two or three times a week

    Ⓔ Every day or almost every day

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VC497143

11. Do you use a computer for math homework at home?

Ⓐ Yes

Ⓑ No

VB543148

12. On a typical day, how much time do you spend doing work for math class on a computer? Include work you do in class and for homework.

Ⓐ None

Ⓑ Half an hour or less

Ⓒ About 1 hour

Ⓓ About 2 hours

Ⓔ More than 2 hours

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VB543155

13. When you are doing math for school or homework, how often do you use these **different types of computer programs**? Fill in **one** oval on each line.

	Never or hardly ever	Once every few weeks	About once a week	Two or three times a week	Every day or almost every day	
a. A spreadsheet program for math class assignments	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VB543157
b. A program to practice or drill on math facts (addition, subtraction, multiplication, division)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VB543158
c. A program that presents new math lessons with problems to solve	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VB543160
d. The Internet to learn things for math class	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VB543159
e. A calculator program on the computer to solve or check problems for math class	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VB543161
f. A graphing program on the computer to make charts or graphs for math class	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VB543262
g. A statistical program to calculate patterns such as correlations or cross tabulations	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VB517157
h. A word processing program to write papers for math class	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VB543156
i. A program to work with geometric shapes for math class	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC466133

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VC189591

14. Do you use the Internet at home?

Ⓐ Yes

Ⓑ No

VC189613

15. How often do you use e-mail, instant messages, blogs, or text messages to do any of the following? Fill in **one** oval on each line.

	Never or hardly ever	Once every few weeks	About once a week	Two or three times a week	Every day or almost every day
a. Talk online with friends about math work	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
b. Get help with math from someone other than your teacher, family, classmates, or friends	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ

VC299268

VC189626

VB595182

16. How hard was this test compared to most other tests you have taken this year in school?

Ⓐ Easier than other tests

Ⓑ About as hard as other tests

Ⓒ Harder than other tests

Ⓓ Much harder than other tests

VC034559

17. How hard did you try on this test compared to how hard you tried on most other tests you have taken this year in school?

Ⓐ Not as hard as on other tests

Ⓑ About as hard as on other tests

Ⓒ Harder than on other tests

Ⓓ Much harder than on other tests

VB595184

18. How important was it to you to do well on this test?

Ⓐ Not very important

Ⓑ Somewhat important

Ⓒ Important

Ⓓ Very important

Reading Background Questionnaire

Grade 8

This section has 15 questions. Mark your answers in your booklet. Fill in only **one** oval for each question.

VB345622

1. Please indicate how much you DISAGREE or AGREE with the following statements about reading and writing. Fill in **one** oval on each line.

	Strongly disagree	Disagree	Agree	Strongly agree
a. When I read books, I learn a lot. VB345623	Ⓐ	Ⓑ	Ⓒ	Ⓓ
b. Reading is one of my favorite activities. VB345624	Ⓐ	Ⓑ	Ⓒ	Ⓓ

VB379288

2. How often do you do each of the following? Fill in **one** oval on each line.

	Never or hardly ever	Once or twice a month	Once or twice a week	Almost every day
a. Read for fun on your own time VB379289	Ⓐ	Ⓑ	Ⓒ	Ⓓ
b. Talk with your friends or family about something you have read VB379290	Ⓐ	Ⓑ	Ⓒ	Ⓓ

VB345644

3. Now think about reading and writing you do for school. For your **English** class this year, how often do you do each of the following? Fill in **one** oval on each line.

	Never or hardly ever	A few times a year	Once or twice a month	At least once a week
a. Have a class discussion about something that the whole class has read VB345645	Ⓐ	Ⓑ	Ⓒ	Ⓓ
b. Work in pairs or small groups to talk about something that you have read VB345646	Ⓐ	Ⓑ	Ⓒ	Ⓓ

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VB345648

4. For your **English** class so far this year, how many times have you done each of the following? Fill in **one** oval on each line.

	Never	Once	2 or 3 times	4 or 5 times	6 or more times	
a. Made a presentation to the class about something that you have read	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VB345650
b. Done a project about something that you have read (for example, written a play, created a website)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VB345651

VC503833

5. How often do you use either the school library or the public library to get information for a school project or homework?

Ⓐ Never or hardly ever

Ⓑ Once or twice a month

Ⓒ Once or twice a week

Ⓓ Every day or almost every day

VC503834

6. How often do you use either the school library or the public library to get information for your own use?

Ⓐ Never or hardly ever

Ⓑ Once or twice a month

Ⓒ Once or twice a week

Ⓓ Every day or almost every day

VC503875

7. Do you study or do work for English/ language arts at an after-school or tutoring program?

Ⓐ Yes

Ⓑ No

VC504012

8. In your school, do you participate in extracurricular activities such as book clubs, competitions, fairs, or exhibits for reading?

Ⓐ Yes

Ⓑ No

VB345715

9. For school this year, how often have you been asked to write long answers to questions on tests or assignments that involved reading?

Ⓐ Never

Ⓑ Once or twice this year

Ⓒ Once or twice a month

Ⓓ At least once a week

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VC504013

10. In your English/language arts class this year, how often does your class do each of the following? Fill in **one** oval on each line.

	Never or hardly ever	Once or twice a month	Once or twice a week	Every day or almost every day	
a. Read aloud	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504014
b. Read silently	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504015
c. Discuss new or difficult vocabulary	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504016
d. Explain what we have read	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504017
e. Do a group activity or project about what we have read	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504018
f. Read books we have chosen	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504019
g. Write something about what we have read	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504020
h. Discuss different interpretations of what we have read	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504021

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VC504022

11. In your English/language arts class this year, when reading a story, article, or other passage, how often does your teacher ask you to do the following? Fill in **one** oval on each line.

	Never or hardly ever	Once or twice a month	Once or twice a week	Every day or almost every day	
a. Summarize the passage	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504023
b. Interpret the meaning of the passage	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504024
c. Question the motives or feelings of the characters	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504025
d. Identify the main themes of the passage	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504026

VC504027

12. In your English/language arts class this year, how often do you use a computer to do each of the following? Fill in **one** oval on each line.

	Never or hardly ever	Once or twice a month	Once or twice a week	Every day or almost every day	
a. Learn and practice vocabulary	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504028
b. Practice spelling and grammar	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504029
c. Write stories or reports	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504030
d. Produce multimedia reports/projects	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504031
e. Read books on the computer	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504032
f. Access reading-related websites (for example, websites with book reviews and lists of recommended books)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504033
g. Conduct research for reading and writing projects	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504034
h. Correspond with students from other schools using e-mail	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504035

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VB595182

13. How hard was this test compared to most other tests you have taken this year in school?

Ⓐ Easier than other tests

Ⓑ About as hard as other tests

Ⓒ Harder than other tests

Ⓓ Much harder than other tests

VC034559

14. How hard did you try on this test compared to how hard you tried on most other tests you have taken this year in school?

Ⓐ Not as hard as on other tests

Ⓑ About as hard as on other tests

Ⓒ Harder than on other tests

Ⓓ Much harder than on other tests

VB595184

15. How important was it to you to do well on this test?

Ⓐ Not very important

Ⓑ Somewhat important

Ⓒ Important

Ⓓ Very important

Science Background Questionnaire

Grade 8

This section has 13 questions. Mark your answers in your booklet.

VC304978

1. In your science class this year, which of the following topics have been covered? Fill in **one** oval on each line.

	Yes	No	
a. Life science (for example, biology, the human body, or ecology)	Ⓐ	Ⓑ	VC304982
b. Physical science (for example, energy, physics, or chemistry)	Ⓐ	Ⓑ	VC304983
c. Earth and space science (for example, geology or astronomy)	Ⓐ	Ⓑ	VC304984
d. Engineering and technology (for example, designing solutions to problems)	Ⓐ	Ⓑ	VC304985

VC304986

2. In your science class this year, have you done hands-on activities or projects with any of the following? Fill in **one** oval on each line.

	Yes	No	
a. Living things (for example, plants, animals, bacteria)	Ⓐ	Ⓑ	VC304988
b. Electricity (for example, batteries and light)	Ⓐ	Ⓑ	VC304989
c. Chemicals (for example, mixing or dissolving sugar or salt in water)	Ⓐ	Ⓑ	VC304991
d. Rocks or minerals (for example, identifying types)	Ⓐ	Ⓑ	VC305007
e. Magnifying glass or microscope (for looking at small things)	Ⓐ	Ⓑ	VC305008
f. Thermometer or barometer (for making measurements)	Ⓐ	Ⓑ	VC305009
g. Simple machines (for example, pulleys and levers)	Ⓐ	Ⓑ	VC305012

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VC305292

3. In your science class this year, how often do you do each of the following? Fill in **one** oval on each line.

	Never or hardly ever	Once every few weeks	About once a week	Two or three times a week	Every day or almost every day	
a. Read a science textbook, in class or at home	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC546510
b. Read a book or magazine about science	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC305295
c. Read about science on the computer	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC305307
d. Watch a movie, video, or DVD about science	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC305307

VC305292

4. In your science class this year, how often do you do each of the following? Fill in **one** oval on each line.

	Never or hardly ever	Once every few weeks	About once a week	Two or three times a week	Every day or almost every day	
a. Discuss events in the news that are related to what you are learning in science class	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC304771
b. Work with other students on a science project or activity	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC304772
c. Figure out different ways to solve a science problem	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC305328
d. Present what you learned about science to your class	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC305329
e. Take a science test or quiz	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC305309

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VC305292

5. In your science class this year, how often do you do each of the following? Fill in **one** oval on each line.

	Never or hardly ever	Once every few weeks	About once a week	Two or three times a week	Every day or almost every day	
a. Identify questions that can be addressed through science experiments	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC304770
b. Design a science experiment	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC305318
c. Talk about measurements you took for your science project or activity	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC305320
d. Talk about the results of your science project or activity	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC305327
e. Watch your teacher do a science experiment or activity	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC305308
f. Make graphs or charts of the results from your science project or activity	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC304773
g. Write a report on your science project or activity	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC315265

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VC315289

6. In this school year, how often have you been asked to write answers of more than one sentence to questions on tests or assignments for science?

   Ⓐ Never or hardly ever

   Ⓑ Once every few weeks

   Ⓒ About once a week

   Ⓓ Two or three times a week

   Ⓔ Every day or almost every day

VC546453

7. In this school year, how often have you talked with your teacher about how you are doing in science?

   Ⓐ Never or hardly ever

   Ⓑ Once every few weeks

   Ⓒ About once a week

   Ⓓ Two or three times a week

   Ⓔ Every day or almost every day

VC315266

8. In this school year, how often have you used library resources for science?

   Ⓐ Never or hardly ever

   Ⓑ Once every few weeks

   Ⓒ About once a week

   Ⓓ Two or three times a week

   Ⓔ Every day or almost every day

VC546463

9. In this school year, how often have you used computers for science?

   Ⓐ Never or hardly ever

   Ⓑ Once every few weeks

   Ⓒ About once a week

   Ⓓ Two or three times a week

   Ⓔ Every day or almost every day

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VC305330

10. Please indicate how much you DISAGREE or AGREE with the following statements about science. Fill in **one** oval on each line.

	Strongly disagree	Disagree	Agree	Strongly agree	
a. I do science-related activities that are not for schoolwork.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC305348
b. I like science.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC305350
c. Science is one of my favorite subjects.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC305351
d. I take science only because I have to.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC305352
e. I take science only because it will help me in the future.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC305353

VB595182

11. How hard was this test compared to most other tests you have taken this year in school?

Ⓐ Easier than other tests

Ⓑ About as hard as other tests

Ⓒ Harder than other tests

Ⓓ Much harder than other tests

VC034559

12. How hard did you try on this test compared to how hard you tried on most other tests you have taken this year in school?

Ⓐ Not as hard as on other tests

Ⓑ About as hard as other tests

Ⓒ Harder than other tests

Ⓓ Much harder than other tests

VB595184

13. How important was it to you to do well on this test?

Ⓐ Not very important

Ⓑ Somewhat important

Ⓒ Important

Ⓓ Very important

NAEP Questions Tool

Introduction

After every assessment cycle, NAEP releases a portion of the main assessment to the public. The NAEP Questions Tool allows users to view those questions, as well as their associated scoring guides, keys, classification information, performance data, student group data, and student responses (for constructed-response questions only). The purpose of the tool is to provide teachers, researchers, and educators with greater access to NAEP assessment exercises.

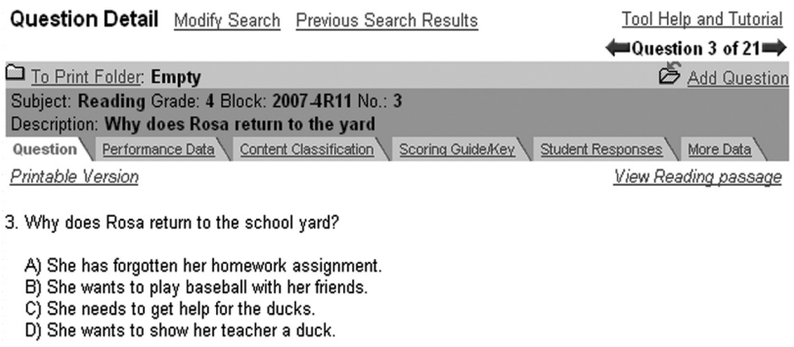
The tool also allows users to print selected questions and all their relevant information.

How to Access

The direct URL link to the NAEP Questions Tool is http://nces.ed.gov/nationsreportcard/itmrls, or click **NAEP Questions** on The Nation's Report Card™ home page.

What information can I get about each question?

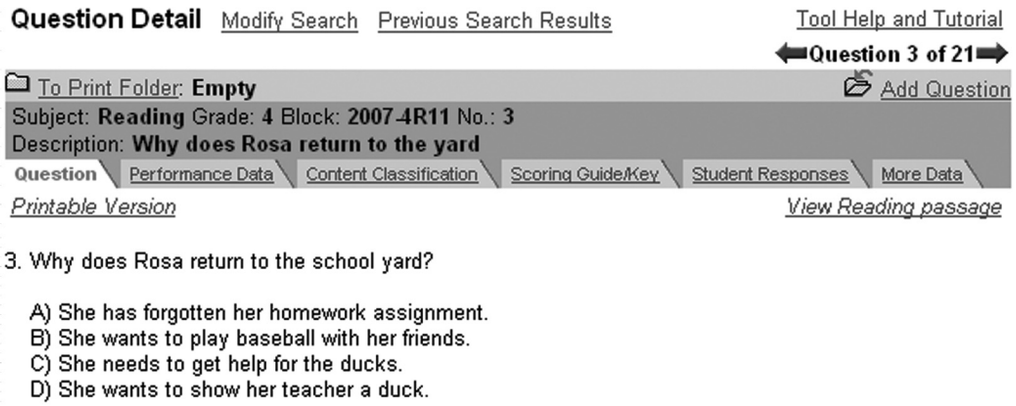
When you select a question to view, a screen similar to the one below will be displayed.



Information related to a selected question is available by clicking the tabs at the top of the screen. A description of these tabs follows.

Question: When the screen first appears, the question will be displayed, and the **Question** tab will be highlighted. When you are viewing related information other than the question itself, click on this tab to re-display the question.

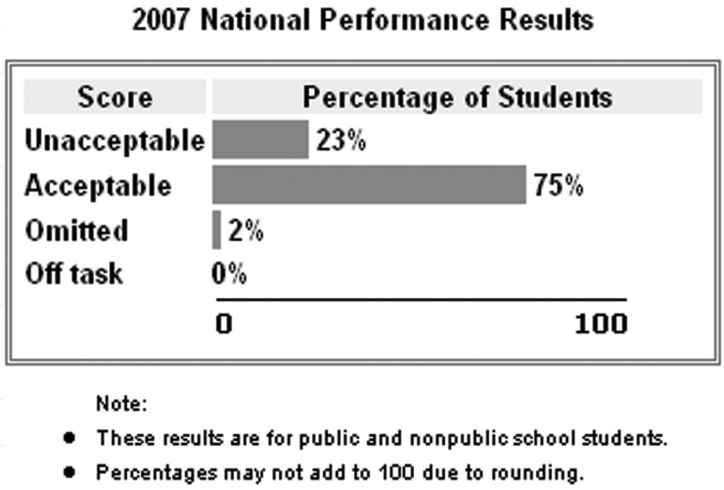
Links within the question: The question and related graphics or text passages may not fit on the screen area without scrolling. Some questions have associated content such as reading passages or maps. To see these materials, click on the link labeled "View reading passage" or "additional materials." This text varies depending on the subject.



Note that the questions have been formatted to display on the screen and may not be presented in the same way as they were to the student.

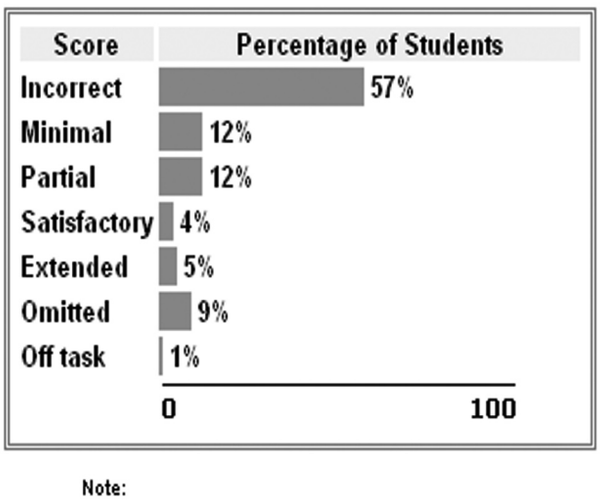
Performance Data: Shows information about how students scored on the question.

For Multiple-Choice Questions: Shows the percentage of students who answered the question incorrectly or correctly, or who omitted the item.



Note:
- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

For Constructed-Response Questions: Shows the percent correct by score level.



Note:
- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

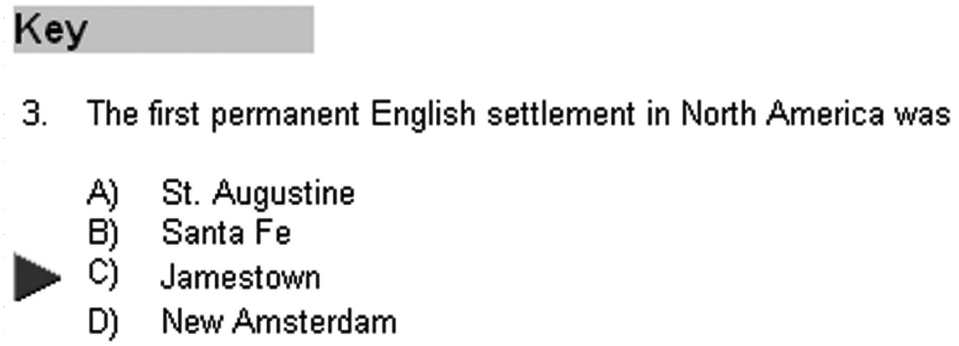
The scoring criteria will vary depending on the subject and type of question. Click on the **Scoring Guide/Key** tab to see a description of the score levels used for each constructed-response question, and the **Student Response Tab** to see sample student responses at each score level.

Content Classification: Shows information about how the question relates to the subject area framework. This includes a description of the *content domain*—what is being assessed—and the *cognitive skills* within that domain.

Use the links on the upper right of the Content Classification screen to move between the sections of the screen. Note that the name of the links will vary depending on subject and question type.

Scoring Guide/Key: Shows information about how the question was scored.

For Multiple-Choice Questions: Shows the "key" or correct answer for the question.



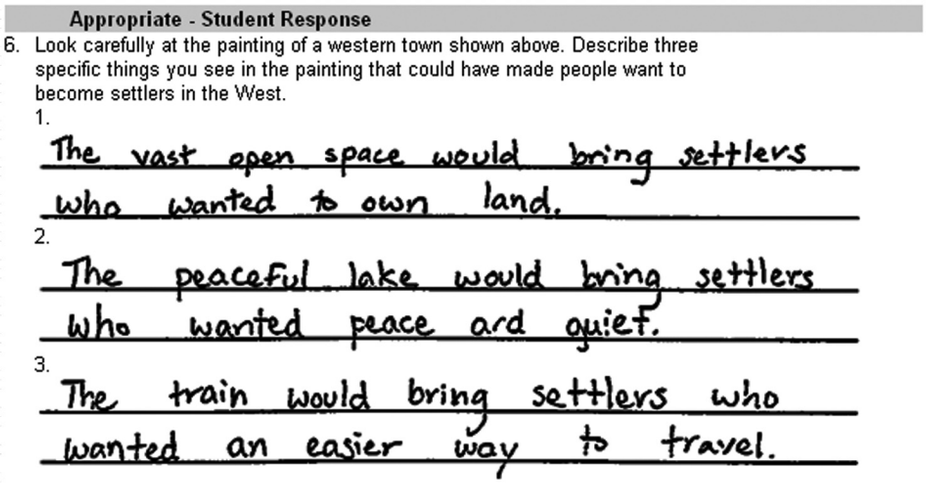
For Constructed-Response Questions: Shows the scoring guide used to determine the score for the student's answer.

Scoring Guide

Score & Description
Appropriate The response indicates that the Civil War was a threat to the nation by specifically referring to the split between the North and the South.
Partial The response mentions the Civil War, but does not fully make the link between the war and the threat to the nation. OR response mentions Civil War but contains a significant inaccuracy. OR the response mentions split but does not mention Civil War.
Inappropriate The response does not explain why the nation was in danger.

Note that the scoring criteria will vary depending on the subject and type of question.

Student Responses: Shows *actual* student responses to the question for each score level.



Use the scroll bar to move between the sections of the screen. Note that student responses are available only for constructed-response questions.

In some subjects, you will find a **Scorer's Commentary** button after the student responses. Each subject offers a different model for the scorer's commentary—some provide one for every response, others for both responses. The scorer's commentary gives you additional information on why the response received the score that it did and often refers back to the scoring guide.

More Data: Provides question-level data that indicates how students across the nation performed on individual questions. The "more data" tab can also be used to explore student group performance (males and females) on individual items.

All students

	Inappropriate				Partial		
	Avg. Score	(S.E.)	Row Pct.	(S.E.)	Avg. Score	(S.E.)	Row Pct
All students	192	(2.1)	14	(0.9)	210	(1.4)	5

Gender

	Inappropriate				Partial		
	Avg. Score	(S.E.)	Row Pct.	(S.E.)	Avg. Score	(S.E.)	Row Pct.
Male	191	(3.1)	13	(1.2)	214	(2.0)	58
Female	194	(2.6)	14	(1.2)	205	(1.6)	55

Region of the country (2003 and later)

	Inappropriate				Part	
	Avg. Score	(S.E.)	Row Pct.	(S.E.)	Avg. Score	(S.E.)
Northeast	‡	(‡)	13	(1.9)	214	(2.0)
Midwest	‡	(‡)	9	(1.7)	217	(3.4)

Information about the performance of the following student groups is included on the More Data screen:

- All students
- Gender
- Region of the Country
- Race/Ethnicity
- Type of School (public/nonpublic)
- Type of Location
- National School Lunch Program

Where can I find more information about the subjects NAEP assesses?

The NAEP website contains a wealth of information about the subjects NAEP assesses. Just click on one of the subject area links to find out more. The URL for the site is http://nces.ed.gov/nationsreportcard/.

Additional Help

For more help with features on the NAEP website, click **Help** in the banner.

For additional help, write to us via **Contact Us**, or e-mail Sherran.Osborne@ed.gov.

Information About
National Assessment of Educational Progress
2009 Assessments
Mathematics, Reading, and Science

PROJECT MISSION. NAEP is administered by the U.S. Department of Education to report on the achievement of American students in key academic subjects. For more information about the NAEP program, visit the NAEP website at http://nces.ed.gov/nationsreportcard or call 202–502–7420.

PARTICIPATION. States and districts that receive Title I funds are required to participate in biennial NAEP reading and mathematics assessments at grades 4 and 8. Student participation is always voluntary. Contact your school's NAEP coordinator for more information.

NAEP CONTENT. The National Assessment Governing Board develops frameworks detailing what students reasonably might be expected to know and do for each subject assessed by NAEP. For additional information on framework development, see the Governing Board's website at http://www.nagb.org.

SAMPLE NAEP QUESTIONS. For each assessment, some of the test questions, along with performance data, are made available to the public to provide concrete samples of NAEP contents and results. For every assessment, NAEP distributes to participating schools sample questions booklets that provide more detailed information about the assessment design and questions. Released questions and student performance data may be viewed on and downloaded from the NCES website at http://nces.ed.gov/nationsreportcard/itmrls.

SECURE NAEP QUESTIONS. On written request, adults may review NAEP questions and instruments still in use. These arrangements must be made in advance, and persons reviewing the assessment may not remove the booklets from the room, copy them, or take notes. Contact your school's NAEP coordinator for more information.

NAEP REPORTS. NAEP publications can be searched and downloaded from the NAEP website at http://nces.ed.gov/nationsreportcard.

FOR FURTHER INFORMATION. For prompt field staff support on these or other matters, call the NAEP Help Desk at 800–283–6237.

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